USGS
science for a changing world

USGS: Organizing, Preserving, and Communicating Knowledge Of The Natural World

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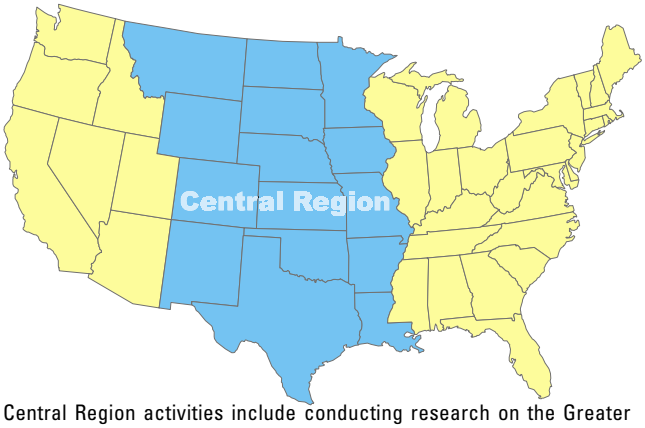

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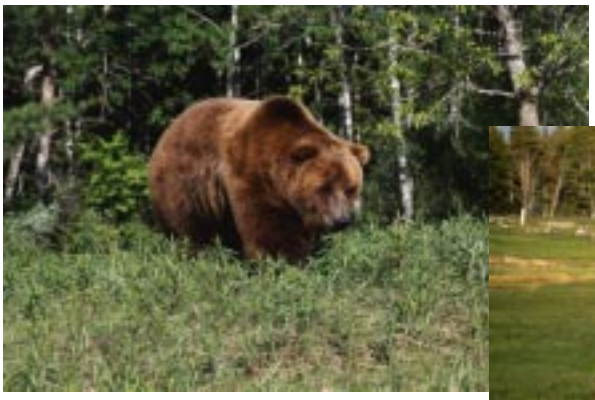
Two USGS initiatives in the FY2000 budget will make access to this information easier and more efficient by taking advantage of modern information tools and technologies. The National Spatial Data Infrastructure (NSDI)-Community/Federal Information Partnerships (C/FIP) ($3 million for biological information) and the National Biological Information Infrastructure (NBII) ($1 million) are streamlining information access, storage, and retrieval. NSDI-C/FIP offers geographic information, such as the distributions of migratory birds like the sandhill crane, and the extent of the spread of invasive weeds within the United States. The NBII is an Internet-based effort the USGS coordinates that provides access to a storehouse of information on the nation's biological resources.

In the Central Region (shown above), activities already underway that can benefit from these initiatives include work in the Greater Yellowstone Area (GYA), the Lower Missouri River ecosystem, and the Gap Analysis Program (GAP).

The GYA encompasses 18 million acres of land in Idaho, Montana, and Wyoming. At its core lie two of the nation's most prominent National Parks, Yellowstone and Grand Teton. The U.S. Forest Service manages six different National Forests surrounding the parks.

The U.S. Fish and Wildlife Service manages two National Wildlife Refuges, and Native American Indian Reservations manage the remaining public lands surrounding the parks. Decision-makers (land managers and local governments) need the highest quality information to help them to make critical environmental judgments tied to the area's rapid population growth. A fundamental goal of the NBII is to enhance the GYA Data Clearinghouse to provide managers, planners, scientists, academia, and other stakeholders access to geographically-referenced information on biological issues. This information will be used in assessments of ecological trends in the GYA.



Grizzly bear and bison are just two of the species in the Greater Yellowstone area whose distribution and habitat preferences are defined by GAP.

Lower Missouri River Ecosystem

Scientists from the USGS Columbia Environmental Research Center (CERC) are working with federal, state, and local agencies and private groups to collect information that will aid in floodplain management for the Lower Missouri River. CERC created *InfoLINK* to serve as a clearinghouse for Missouri River information by providing information in an easy to use format on the Internet as well as linking people and organizations interested in the river. This link will ease the transfer of information through a network of contact people, the consolidation of public and private information in one site, and a Geographic Information System (GIS)-based point and click map to access information from specific river areas (GIS involves the handling, management, and analysis of geographically-referenced information).

The Missouri Resource Assessment Partnership (MoRAP), which is located at CERC, has the goal of producing high-quality environmental information for its partner agencies to use in managing natural resources. Agencies have an urgent need for this kind of information and must be able to develop it in cost-effective ways.

Gap Analysis Program

GAP develops and maps biodiversity information. Over the past eight years, rapid progress has been made in developing computer maps of vegetation communities like Oak-Hickory Forests and Tallgrass Prairie and each of about 300 to 700 native species of amphibians, birds, mammals, and reptiles. Today, such maps either have been made or are now being complete in each of the 48 contiguous states.

Over 500 federal, state, and local agencies, universities, and private organizations are participating in this work. The goal is to learn more about which species or which habitat types could potentially become diminished or threatened with extinction.

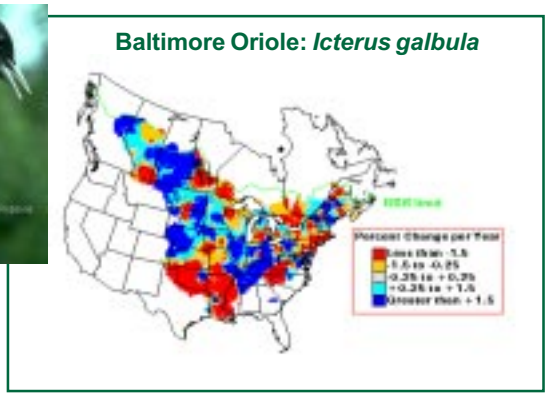
Interest stems from rapid growth in residential, commercial, and industrial areas, as well as more intensive uses of farm, forest, and recreation areas in recent decades. Because continued growth is expected, businesses and governments want this information to help them avoid conservation "surprises" or crises in the future, such as the famous spotted owl crisis in the Pacific Northwest.

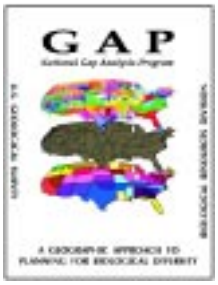
USGS is playing an important role in making these statewide and regionwide maps available for the first time. What's more, USGS is on the cutting edge of developing much new science and technology in order to achieve this type of information.

Here are a few examples of information available through the NBII today

FrogWeb <http://www.frogweb.gov> offers a broad range of information on amphibians, including insights on the important role the public can play in frog research.

The North American Breeding Bird Survey shows population trends and distributions for 400 species of birds over the last 30 years.





The Gap Analysis Program maps biodiversity in relation to land management status in more than 40 states.

The Integrated Taxonomic Information System is the first comprehensive, standardized reference of scientific names of the plants and animals of North America and surrounding oceans. In April 1998, the six Federal agencies partnering in this program were co-recipients of a Hammer Award.

For More Information

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